Division of the
State Architect
CALIFORNIA DEPARTMENT OF GENERAL SERVICES

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DSA BULLETIN #11-01

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Supersedes and replaces DSA Bulletin 07-02

To: Owners of Pre-Check (PC) drawings and specifications, DSA Staff and Interested Parties

From: Division of the State Architect
Department of General Services
State of California

SUBJECT: Extension for Use of 2007 Pre-Check (PC) Plans and Specifications; Procedure for Updating PC Approvals to 2010 California Building Standards Code (CBSC)

1. 2007 PC PLANS EXTENSION UNTIL December 31, 2011

All PC drawings and specifications approved for compliance with the 2007 California Building Standards Code (CBSC), Title 24, California Code of Regulations, will be accepted with applications submitted to DSA through December 31, 2011, provided they meet requirements outlined in Section 2 of this Bulletin.

With the exception of PC drawings and specifications as described in this Bulletin, all other drawings and specifications (for example: site drawings associated with the placement of the PC structure on the school site) included with project applications submitted to DSA on or after January 1, 2011 must comply with the requirements of the 2010 CBSC.

2. ADDITIONAL REQUIREMENTS EFFECTIVE JANUARY 1, 2011:

The accessibility features indicated in any 2007 PC will be required to comply with the 2010 CBC when submitted to DSA for project specific use. These features are:

- The accessible features of a toilet facility
- Clear floor space requirements at accessible drinking fountains
- Proportions and heights of characters on signs
- Maneuvering clearances at sliding and pocket doors
- Door clearances at ramp landings
- Encroachment of doors at ramp landings (see BU 08-06)

- Handrail projections at ramps
- Guide curbs and wheel guide rails at ramps

All drawings and specifications for the non-PC portion of a project submitted on or after January 1, 2011 must comply with the 2010 CBSC, even if submitted with 2007 PC plans.

3. APPLICATION FOR 2010 PC APPROVAL

The PC holder should submit a complete application package to DSA in accordance with the requirements of PR 07-01. A new application number will be assigned to the 2010 PC.

The re-approval application package must be submitted to the DSA Regional Office that has jurisdiction for the county in which the buildings will be manufactured. Questions regarding the expiration of PC drawings and specifications or the submittal process should also be directed to the local DSA Regional Office.

4. REQUIREMENTS FOR APPROVAL

See Procedure PR 07-01 for the requirements for PC approval. Note that PCs with an excess number of options should be broken into two or more smaller PCs in accordance with PR 07-01. Also, see PR 07-01, Section 4.2, and DSA Policy 10-01 for guidelines for Automatic Fire Sprinkler Systems (AFSS).

Attachment A to this Bulletin provides a summary of major code changes to assist the PC owners in identifying design elements that must be updated for compliance with 2010 CBSC. Submit a completed copy of Attachment A as part of the Pre-Check submittal. Place a check mark in the last column for each applicable item.

Attachment B to this Bulletin outlines the additional submittal requirements to identify changes in plans and specifications related to code updates.

Refer to IR N-1 for requirements for the energy compliance review of PC designs for submittal to DSA.

5. PC Designs Required by Code to Have Automatic Fire Sprinkler Systems (AFSS) – All PC designs that are required by code to have AFSS are subject to DSA Policy 10-01. PC designs submitted to DSA for approval after July 1, 2010 must include the AFSS, i.e. no deferred submittals are permitted. AFSS guidelines for PC designs will be incorporated into the next revision (scheduled for January 2011) of DSA Policy 10-01 and Procedure 07-01.

Due to the extension provided by this Bulletin, PC designs approved by the DSA without AFSS approvals may be submitted to DSA until December 31, 2011. However, beginning January 1, 2011, DSA does not permit the use of PC designs without AFSS approvals for projects involving the following:

- Vocational shops
- Science labs
- Dining uses with an occupant load of 100 or more
- Assembly uses with an occupant load of 300 or more

6. 2010 CALIFORNIA ENERGY CODE (Adopted in 2008 edition) – See DSA Bulletin 09-09.

7. INCREMENTAL PROJECTS – Per IR A-11, a subsequent increment must be submitted within 6 months of DSA approval of a previous increment. For increments submitted between January 1, 2011 and December 31, 2011, a 2007 PC design may be used.

8. CODE REFERENCES REQUIRED ON PC COVER SHEET

The following list of building codes and standards must be included on the cover sheet of any PC project drawings submitted for approval under 2010 CBSC (Title 24 of the California Code of Regulations).

TITLE 24 CODES:

2010 California Administrative Code (CAC).....(Part 1, Title 24, CCR)

2010 California Building Code (CBC), Volumes 1, and 2 (Part 2, Title 24, CCR)
(2009 Edition International Building Code with 2010 California amendments)

2010 California Electrical Code .....(Part 3, Title 24, CCR)
(2008 Edition National Electrical Code with 2010 California amendments)

2010 California Mechanical Code (CMC).....(Part 4, Title 24, CCR)
(2009 Edition IAPMO Uniform Mechanical Code with 2010 California amendments)

2010 California Plumbing Code (CPC) ..... (Part 5, Title 24, CCR)
(2009 Edition IAPMO Uniform Plumbing Code with 2010 California amendments)

2010 California Energy Code .....(Part 6, Title 24, CCR)
(2008 Edition California Energy Commission Building Energy Efficiency Standards)

2010 California Fire Code (CFC).....(Part 9, Title 24, CCR)
(2009 Edition of International Fire Code with 2010 California Amendments)

2010 California Green Code..... (Part 11, Title 24, CCR)

2010 California Referenced Standards Code .....(Part 12, Title 24, CCR)

NFPA 13 – 2010

NFPA 72 – 2010

REFERENCE CODE SECTIONS FOR APPLICABLE STANDARDS

2010 CBC, Chapter **35**

2010 CFC, Chapter **45**

ATTACHMENTS:

A: 2010 CODE UPDATES FOR PC DESIGNS

B: PROCEDURE FOR UPDATING 2007 PC DESIGN DOCUMENTS TO THE 2010 CODE

ATTACHMENT A
Significant Code Changes Between the 2007 and 2010 Editions of the Title 24 Codes and DSA Policy Changes That May Impact PC Design Requirements

The following 2010 code sections were changed from 2007 so that design requirements for existing PCs are affected. Documents submitted to DSA for updating of PC designs must show the changes highlighted that were made in order to be in compliance with the 2010 California Building Standards Code (CBSC), also known as Title 24 of the California Code of Regulations. For details on submittal requirements, see Attachment B.

Please note that for code compliance requirements for Energy and Green Code impacted portions of the PC design, you must follow the instructions in DSA IR N-1.

Submit a completed copy of Attachment A with your PC submittal. Check the last column for all items that apply.

Project Identification: _____

CBSC PART	Chapter	2010 Section	2007 Section	Significant Changes	Item #
S T R U C T U R A L S A F E T Y					
2	---	---	---	Review ICC reports for products used for current acceptance (e.g. roof diaphragm shot pins, etc)	**SS1** ☐
2	16A	1603A.1.5	---	Horizontal and vertical irregularities are now required to be described in the design criteria.	**SS2** ☐
2	16A	1603A.1.6		The design load bearing values of soils shall now be shown on the construction documents.	**SS3** ☐
2	16A	1605A.3.1&2 Exception 2	---	For ASD design roof live load no longer needs to be combined with seismic loads.	**SS4** ☐
2	16A	1609A.1.1.2	---	Lower limit wind pressures for wind tunnel tested components now in code.	**SS5** ☐
2	16A	1609A.6	1609A.6	Alternate wind provisions added to CBC. IR 16-7 no longer valid for 2010 projects. Alternate wind provisions not allowed for open buildings and signs, must use ASCE 7. There are some changes to coefficients, etc that may impact wind loading.	**SS6** ☐
2	16A	1613A.6.3	---	Fire sprinkler systems shall be designed and detailed in the PC and in accordance with this section.	**SS7** ☐
2	16A	1613A.6.7	---	Building seismic separation based on SRSS is allowed versus the absolute sum indicated in ASCE 7. If SRSS used, must use max displacement, not center of mass displacement.	**SS8** ☐
2	16A	1615A.1.2A Item # 2b	1614A.1.2 Item 2b	Site specific ground motions required for buildings located in seismic hazard zones and no longer based on within 10 km of site.	**SS9** ☐
2	16A	1615A.1.12	---	Foundation design and structure-to-foundation connection when R<2.5 are no longer exempt from this section (omega/amplified loads). Affects cantilever column systems.	**SS10** ☐
2	16A	1615A.1.16	---	Update suspended ceiling references to ASTM E580 with minor changes if any. Change ceiling notes to match new IR 25-2.10	**SS11** ☐
2	16A	1615A.1.20	---	Cable tray provisions revised, requires bracing for I_p=1 and hangers with hinges when rod > 3/8" dia.	**SS12** ☐

CBSC PART	Chapter	2010 Section	2007 Section	Significant Changes	Item #
2	17A	1704A.4.3 Item #2	1704A.4.3 Item #2	Waiver of continuous batch plant inspection revised.	**SS13** ☐
				2500 psi design requirement raised to 3000 psi.	**SS14** ☐
2	18A	1808A.8.5	1805A.4.2.6	Placing of concrete footings against earth no longer requires additional inch of width on each side.	**SS15** ☐
2	19A	1905A.1.1	1905A.1.1	Concrete strength shall be no less than 3000 psi. Lower limit of 2500 psi for light structures was repealed.	**SS16** ☐
2	19A	1908A.1.23	---	Intermediate precast shear wall provisions require more stringent wall pier reinforcement.	**SS17** ☐
2	19A	1908A ACI 318-08	1908A ACI 318-05	Various changes to ACI 318-08, including: • slender column changes • structural integrity reinforcing shall be class b laps • shear friction limits • lightweight concrete factors changed • development length for headed deformed bars • lap splice length of different sized bars • new slender wall design provisions • Chapter 21 (seismic) reorganized • coupling beam provisions revised • shear wall confinement relaxed • topping slab changes	**SS18** ☐
2	19A	1901A ACI 318-08 Appendix D	1901A ACI 318-05 Appendix D	In ACI 318 Appendix D, there are various changes related to lightweight concrete, 0.75 seismic factor applying to only concrete failure modes, new factors for concrete breakout in shear for thin sections, anchor reinforcement provisions, supplemental reinforcement etc. Revise anchor calculations.	**SS19** ☐
2	19A	1908A.1.31	1908A.1.47	Non-structural anchorage in no longer exempt from the ductile anchor requirements. May require larger non-structural anchors.	**SS20** ☐
2	19A	1916A.2	1916A.2	Reinforcing steel testing waiver requirement no longer tied to 3500/2500 psi concrete, but left to DSA for 1-story buildings. May reduce testing.	**SS21** ☐
2	19A	1916A.7.1	1916A.8	Test loads, torque, and acceptance criteria for post-installed anchors shall be shown on the drawings. Also, the test load requirements are now clarified in the code.	**SS22** ☐
2	21A	2101A.3 Items #5-9	---	Additional items required to be shown on the construction documents, including f'_m, anchorage, conduits/pipes, testing requirements.	**SS23** ☐
2	21A	2103A.8	2103A.8	Type M mortar now allowed.	**SS24** ☐
2	21A	2104A.1.1	2104A.1.1	Initial masonry bed joint can be up to 1.25" thick, versus 0.75" in ACI 530.1	**SS25** ☐
2	21A	2105A.4	2105A.4	Masonry core testing diameter changed from 6" to 3-3/4" diameter and no compression test required on core, only shear test.	**SS26** ☐

CBSC PART	Chapter	2010 Section	2007 Section	Significant Changes	Item #
2	21A	2107A.6 ACI 530-08	2107A.5 ACI 530-05	Revised anchor design in masonry to comply with the new anchor provisions in ACI 530-08.	**SS27** ☐
2	22A	2204A.1.2	---	Welds in members and connections in the seismic force resisting system shall be made with filler metals complying with AWS D1.8-6.3.	**SS28** ☐
2	22A	2210A 2007 AISI	2210A 2004 AISI	New 2007 AISI standards add distorsional buckling strength check for flexural members.	**SS29** ☐
				New 2007 AISI standards add standing metal seam roof design section.	**SS30** ☐
				New 2007 AISI standards add lateral bracing force and stiffness requirements.	**SS31** ☐
F I R E A N D L I F E S A F E T Y					
DSA Policy PL 10-01				Fire Sprinklers are not accepted as a deferred submittal after July 1, 2010	**FLS1** ☐
DSA Plan Submittal Guidelines for AFSS					
DSA Bulletin 11-05 – AB 211 Door Hardware					
2010 NFPA 13, Section 22.3 and 22.5				Indicate on the plans: Type of design – Pipe Schedule or Hydraulic Calculated with specified type of hazard such as light hazard or ordinary.	**FLS2** ☐
2010 NFPA, Chapter 22				Indicate the location of riser room on the floor plan.	**FLS3** ☐
				Indicate on the plans the required water flow at the base of the riser for the system to operate for a PC designed as a single building or grouped buildings	**FLS4** ☐
9	5	509.1	510.1	Fire sprinkler riser room door is required to be labeled.	**FLS5** ☐
9	6	605.31	605.31	Electrical control panel room is required to be labeled.	**FLS6** ☐
9	8	807.4.2.2	807.4.2.2	Built-in picture screens are required to be classified as minimum Class “B” flame spread rating.	**FLS7** ☐
2	7	703.6	-----	All fire rated walls are required to be labeled above the ceiling at 30’ intervals with ½ inch letters as to the type of wall and then the words, “Protect all openings”.	**FLS8** ☐
2	9	907.2.2	907.2.2	PC used for non-educational activities and not part of an educational building do not require a fire alarm when separated from other buildings by a minimum of 20 feet. These buildings would include, but not be limited to; Concession stands, restrooms, storage buildings, and outdoor sports dug outs.	**FLS9** ☐
2	10	1006.3	1006.3	Illumination on emergency power is required where two exits are also required at the following locations; • Aisles, Corridors, Exterior landings, Labs, Shops • Unenclosed egress stairways • Exterior egress components at other than discharge level. • Windowless areas with student occupancy.	**FLS10** ☐
9	4	4604.5	-----		

CBSC PART	Chapter	2010 Section	2007 Section	Significant Changes	Item #
2	10	1011.6	1011.6	Low level exits signs are required where high level exit signs are also required in the following interior corridor locations; • Assembly occupancies that do not have fire sprinklers. • Educational occupancies that do not have direct exits from each classroom to the exterior of the building.	**FLS11** ☐
2	10	1011.7	1011.7	Exit Path Marking is required in non-fire sprinklered corridors serving Assembly occupancies.	**FLS12** ☐
AB 211 – Effective 7-1-2011 Ed Code 17075.50				Requires doors to be lockable from the inside. See DSA Bulletin 11-05 for applicability.	**FLS13** ☐
A C C E S S C O M P L I A N C E **Note:** PC designs must comply with the 2010 CBC accessibility provisions for projects submitted to DSA for review on or after January 1, 2011, and are not eligible for extension. See BU 11-01, Section 2.					
2	11B	1115B.3.1 Item #2	1115B.3.1 Item #2 (Exception)	Clarifies door may swing into the portion of maneuvering space which does not overlap the required fixture's clear floor space at multiple accommodation toilet facilities. References revised diagram 11B-1E (c) & (e).	**ACS1** ☐
2	11B	1115B.3.1.4 Item #4.2	1115B.3.1.4 Item #4.2	Specifies required fixture space at water closet compartments with side-opening door as 60" x 60" in front of water closet at either out-swing or in-swing door at multiple accommodation toilet facilities	**ACS2** ☐
2	11B	1115B.3.1.4 Item #4.3	1115B.3.1.4 Item #4.3	Specifies required fixture space at water closet compartments with end-opening door as 60" x 60" in front of water closet at either out-swing or in-swing door at multiple accommodation toilet facilities.	**ACS3** ☐
2	11B	1115B.3.2 Item #2	1115B.3.2 Item #2	Clarifies door may swing into the portion of maneuvering space which does not overlap the required fixture's clear floor space at single accommodation toilet facilities. References revised diagram 11B-1E (a).	**ACS4** ☐
2	11B	1115B.3.2 Item #3	1115B.3.2 Item #3	Requires one accessible water closet to provide a 60" wide x 48" deep maneuvering space in front of water closet at single accommodation toilet facilities.	**ACS5** ☐
2	11B	1115B.4.1 Item #2.1	---	Added requirement for a clear floor space around a water closet which is not within a water closet compartment to be 60" minimum perpendicular from the side wall and 56" minimum from the rear wall.	**ACS6** ☐
2	11B	1115B.4.1 Item #2.2	---	Added requirement for a clear floor space around a wall mounted water closet which is within a water closet compartment to be 60" minimum perpendicular from the side wall and 56" minimum from the rear wall. Floor mounted water closets to have clear floor space from the rear wall of 59".	**ACS7** ☐
2	11B	1115B.4.1 Item #2.3	---	Added requirement for a maneuvering clearance of 60" wide x 36" deep in front of the required clear floor space within an in-swing accessible toilet compartment	**ACS8** ☐

CBSC PART	Chapter	2010 Section	2007 Section	Significant Changes	Item #
2	11B	1117B.1 Item #2	1117B.1 Item #2	Adds the requirement that the required 30" wide x 48" deep clear floor space for front approach to a "hi-low" drinking fountain be centered on the "low" fountain.	**ACS9** ☐
2	11B	1117B.1 Item #3	1117B.1 Item #3	Specifies wing walls may be used in lieu of alcove at drinking fountains. A minimum clear distance of 32" is required between wing walls.	**ACS10** ☐
2	11B	1117B.5.1 Item #1	1117B.5.1 Item #1	Changes "Identification signs" reference sections for *Floor Identification Signage* to 1022.8, for *Delayed Egress Locks* signs to 1008.1.9.7, for *Accessible Means of Egress* to 1007.10 & 1007.11, and for *Elevators* to 1007.4	**ACS11** ☐
2	11B	1117B.5.3	1117B.5.3	Adds specification of height to width ratios of character fonts on signs	**ACS12** ☐
2	11B	1117B.5.4	1117B.5.4	Adds specification and table for character heights on required accessible signs based on viewing distance from sign.	**ACS13** ☐
2	11B	1133B.2.4.2	1133B.2.4.2	Specifies the floor or ground area within the required maneuvering clearances shown on Diagrams 11B-26A, 11B-26B and 11B-26C be level and clear.	**ACS14** ☐
2	11B	1133B.5.4.3 Doors at ramp landings	---	Removed existing "Strike edge extension" section and replaced with "Doors at ramp landings" to specify compliance with Sections 1133B.2.4.2 and 1133B.5.4.4. (See above and below)	**ACS15** ☐
2	11B	1133B.5.4.4 BU 08-06	1133.5.4.3	Changes Section reference for 1117B.5.4.3 to 1117B.5.4.4	**ACS16** ☐
2	11B	1133B.5.5.1	1133B.5.5.1	Adds the distance a handrail may project into the required clear width of a ramp to 3 ½" maximum from each side of the ramp.	**ACS17** ☐
2	11B	1133B.5.6	1133B.5.6	Adds requirements for continuous and uninterrupted wheel guide or guide curb along the entire length of the ramp when handrails or guards are attached to the ramp's surface by posts or supports.	**ACS18** ☐
2	11B	1133B.5.6.1	1133B.5.6.1	Adds the requirement for the 2" high guide curb to be measured from the ramp's surface.	**ACS19** ☐
2	11B	1133B.5.6.2	1133B.5.6.2	Adds the requirement for the 3" high wheel guide curb to be measured from the ramp's surface.	**ACS20** ☐

ATTACHMENT B

Procedure for Updating 2007 PC Design Documents to the 2010 Code

1. General:

The purpose of this Attachment to BU 11-01 is to describe:

- A method for identifying changes to the approved 2007 Pre-Check (PC) drawings and calculations. This method is to be used only on the 2010 PC application submittal drawing review sets; markings shall be removed from the DSA approved documents (stamped out or "record" set).

- Written narratives, that are to be included as part of the 2010 PC submittal describing each change to the drawings and calculations

The method of mark up and documentation described below is intended to assist in the plan review process by making it easier for the DSA plan reviewer to focus on code related modifications and manufacturer corrections, alterations and additions that are being made.

2. Limitations

The procedures described in this Attachment are to be used only for 2010 PC applications that are a direct comparison to the approved 2007 PC design being replaced. Minor additional modifications and additions are allowed.
However, if major modifications or additions are being proposed to the approved 2007 Pre-Check design, contact the DSA Regional Office to arrange a meeting to determine if the new 2010 PC application can be efficiently reviewed as an *update,* or if a *new* PC application must be submitted, which would require more extensive review.

3. Extent of Plan Review

The extent of the 2010 PC plan review will be directly proportional to the number and extent of changes being made to the approved 2007 PC design.

DSA's goal in plan review of 2010 PC application submittals is to enable plan reviewers to focus easily on items that are directly affected by any code or manufacturer changes only.

In general, details that are identical from the approved 2007 PC to the 2010 PC and not affected by code or manufacturer changes will not be reviewed again.

Where a 2010 PC submittal is substantially identical to the approved 2007 PC and has only updates due to the 2010 CBC and corrections due to errors, then the plan review would focus on those affected details and calculations only.

If a 2010 PC submittal has an addition of a major option (see DSA Procedure 07-01, Appendix A), the plan review for this type of submittal would be much more extensive. See Section 2, "Limitations," above, for the handling of this situation.

4. Change Identification System

All existing clouds shown on the approved 2007 PC drawings shall be removed from the 2010 PC plan review set.

The 2010 PC plan review drawings shall be clouded with two unique and visually distinct symbols, one for each of two separate categories of changes, as defined below. This is to be done by changing the lines type of the cloud as specified below.

Cloud identifiers shall be used on drawings for each of the following change categories:

- Category A: A solid line cloud will be used to identify
  - 2010 CBC related changes
  - Pickup of previously approved changes done by hand on the original approved documents

- Category B: A dashed line cloud will be used to identify
  - Manufacturer corrections to the drawings
  - Manufacturer revisions to existing details
  - Manufacturer additional details
  - Any other changes (i.e. deletions of details under 2007 approval). Clearly describe these changes.

5. Narrative of Changes to the Drawings

Provide a written narrative in a separate letter size document that describes each individual change. The document shall have a header on each page stating

- the description of the PC that matches that on the drawings title sheet,
- page number of the narrative, and
- date.

Each change on the drawings shall have the following minimum description in the Changes to Drawings narrative:

- Number of the change, assigned sequentially (example: Item 1).
- Plan Review Discipline affected by the change. Indicate, as applicable:
  - Structural Safety (SS),
  - Access Compliance (AC) or
  - Fire Life Safety (FLS)
- Sheet number where the change being described occurs (example: A1.0)
- Description of changed item, such as Plan type, Detail Number, Elevation Number, or Schedule as applicable (examples: Ceiling Plan, Detail A, Side Elevation, Finish Schedule)
- For changes driven by 2010 CBC compliance, provide code section number, per Attachment A of this Bulletin.
- For all other items, the Changes to Drawing narrative shall contain a description of what was changed and the reason for the change
- Where a change to the drawings requires calculations, the Changes to Drawings narrative description shall note the appropriate calculation sheet number(s).

Clouding of the sheet number only will indicate that the entire sheet is to be reviewed. The Changes to Drawings narrative shall describe all changes or additions individually.

6. 2007 PC Comparison Set

Provide 3 half-size sets (copies for SS, ACS and FLS) of the latest approved 2007 PC drawings that will serve as a direct comparison set for to the 2010 PC application submittal review.

7. Calculations

A new set of calculations for the 2010 PC design should be submitted by the *same engineer* as the approved 2007 PC application.

If the engineer who is responsible for the 2010 PC calculations is different from the one responsible for the approved 2007 PC design, all calculations and drawings pertaining to the structural design shall be reviewed by DSA.

In order for the DSA reviewer to expediently find the changes to the calculations, submit an *additional* copy of the revised or new calculations only as a separate group for the initial plan review.

The revised or new calculations need not be separated from the main body of the calculations for the final submittal.

8. Calculations Narrative

Attach, with the calculations, a Calculations Narrative describing the calculation changes and additions. This narrative is in addition to the Changes to Drawings narrative noted in Section 5.

The Calculations narrative shall identify the following changes:

- 2010 CBC Code related changes as noted in Attachment A of this bulletin. The change shall be identified by item number designated in Attachment A.
- New calculations for manufacturer revisions or additions to the plans

The Calculations narrative shall be placed in front of the revised and added calculations.